DOCUMENT RESUME

ED 109 050 95 SP 009 141

AUTHOR Ingersoll, Gary M.; Kleucker, Joy
TITLE Analysis of Teacher-Pupil Interaction: Reacting to Pupil Responses.
INSTITUTION National Center for the Development of Training Materials in Teacher Education, Bloomington, Ind.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE 71
NOTE 63p.

EDRS PRICE MF-$0.76 HC-$3.32 PLUS POSTAGE
DESCRIPTORS *Communication Skills; *Student Reaction; *Student Teacher Relationship; Teacher Education; *Teaching Skills

ABSTRACT

Teacher-pupil interaction is an integral part of most classroom instruction. A teacher frequently initiates an interaction by making a statement or by asking a question about the lesson. The statement or question is then typically followed by a student response. Though the value of pupil-teacher interaction has often been extolled, interactions often end after a single interchange between teacher and pupil. There are times, however, when it would be more valuable for a teacher to pursue a line of thought with an individual pupil throughout a series of two or more interchanges. In such instances, the teacher can maintain and direct the interaction by the type of questions he/she asks and the kind of encouragement he/she gives. Two teaching skills, involving the ability to ask probing questions and offer accepting reactions, are especially helpful in eliciting and encouraging responses from pupils. In addition, these skills can be used by the teacher to test the level or degree of students' comprehension. (This handbook discusses the teaching competencies necessary for effective pupil-teacher communication. Through (a) discussion of classroom interchange techniques, (b) examples of probing questions and accepting responses, (c) examination of appropriate film transcripts, and (d) communication exercises, a greater understanding of these vital teaching skills is attained.) (Author/JS)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED109050

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

ANALYSIS OF TEACHER-PUPIL INTERACTION:

REACTING TO PUPIL RESPONSES

Developed by

Gary M. Ingersoll

Joy Kleucker

National Center for the Development of Training

Materials in Teacher Education

Indiana University

Bloomington

1971

SP009 141

This manual and its accompanying media materials (including motion picture films and audiotape cassettes) were produced through the National Center for the Development of Training Materials in Teacher Education under a grant from the United States Office of Education. The contents of this manual as well as the motion picture films and the audiotape cassettes are intended for limited distribution pursuant to gathering evaluation data; they may not be produced in any form without the consent of the National Center.

Foreword

This manual and its accompanying media materials (including the motion picture films, Patterns in Teacher-Pupil Interaction: Reacting to Pupil Responses) together represent the pilot set of teacher training materials developed at the National Center. As such, it has provided a valuable model for materials developed since at the National Center, as well as serving a useful instructional and research purpose in its own right.

The design, content and production of the varied materials in this set represents the work and ideas of many persons. In addition to the authors listed on the title page, Laurence D. Brown and W. Howard Levie, both at Indiana University and both Associates of the National Center, contributed greatly to the conceptualization of this pilot product. Katharine Scheid contributed careful editorial work. Finally, Michael Waddell of Promotional Marketing Service, in Louisville did his usual excellent professional and artistic job in directing the film production.

David Gliessman, Director
National Center for the Development
of Training Materials in Teacher
Education

Foreword

When we were asked to place this manuscript in the ERIC system we were at first hesitant. Our hesitancy was due to the fact that much progress has taken place since the writing of this manual: The concepts described have been refined further and additional protocols have been developed. Training and protocol materials referred to as Concepts and Patterns in Teacher-Pupil Interaction have been developed by our colleague Dr. David Gliessman at the National Center for the Development of Training Materials in Teacher Education. Nonetheless, we feel strongly that this manual should be made available. The manual holds value for future developers of training materials since 1) the concepts and procedures specified in it represent our early thinking about the nature of protocol and training materials and 2) together with the current version, it provides something of a case study in development. For example, this particular manual was designed for a separate protocol phase. As the second author found in her doctoral dissertation, however, there is considerable skill training transfer.

21 April 1975

Gary M. Ingersoll, Ph.D.
Associate Director,
National Center for the Development
of Training Materials in Teacher
Education

CONTENTS

Introduction 1

SECTION I

Probing. 1

Definition

Viewing a Film

Discussing the Film

Written Exercise: Identifying Probing Interactions in Different Contexts

Summary of Probing Overview

Types of Probes. 11

Definitions and Examples

Viewing a Film

Questions about the Film

Interchange Exercise: Identifying Probes from a Written Transcript

Patterns of Probing in Classroom Interaction

Comparing the Probing Behavior of Two Teachers 20

Observing Teacher #1

Observing Teacher #2

Comparing the Probing Behavior of Teacher #1 and Teacher #2

Summary of Section I 34

SECTION II

Accepting Reactions (Verbal) 35

Definition and Examples

Viewing a Film

Discussing the Film

Written Exercise: Identifying Accepting Reactions in Different Contexts

Non-Verbal Accepting Reactions 42

Definition and Examples

Viewing a Film

Discussing the Film

Review of Teacher Accepting Reactions

Probing and Accepting as Complementary Skills. 48

Explanation

Identifying Probes and Accepting Reactions in a Written Transcript

Identifying Probes and Accepting Reactions in a Film

Teacher-pupil interaction is an integral part of most classroom instruction. A teacher frequently initiates an interaction by making a statement or by asking a question about the lesson. The statement or question is then, typically, followed by a student response. The value of pupil-teacher interaction has often been extolled (see e.g., Flanagan, 1958). However, interactions often end after a single interchange between teacher and pupil. Teachers often use a shotgun approach to classroom discussion: they ask one child a question, then another child, and another. There are times, however, when it would be more valuable for a teacher to pursue a line of thought with an individual pupil throughout a series of two or more interchanges. In such instances, the teacher can maintain and direct the interaction by the type of questions he asks and the kind of encouragement he gives.

Two teaching skills-probing and accepting--are especially helpful in eliciting and encouraging responses from pupils. In addition, these skills can be used by the teacher to test the level or degree of his students' comprehension. The purpose of the sequence which follows is to train you in the use of these two teaching skills: asking probing questions and offering accepting reactions.

In this unit you will learn to recognize when the teaching skills of asking probing questions and offering accepting reactions occur in a classroom. We are particularly concerned with the role of the teacher in maintaining teacher-pupil interaction through these skills.

The written material in this booklet will be supplemented by a filmed sequence in which two experienced teachers demonstrate the skills

of probing and accepting. Try to avoid focusing on aspects of the classroom scene which are not important parts of the two concepts we have presented. For example, the personalities of the two teachers, the socio-economic background of the children, and the seating arrangements of the classrooms are not really relevant to the teaching skills of asking probing questions and making accepting responses.

By the end of this unit, you should be able to identify the main features of the two concepts. In addition, you should be able to recognize when the corresponding behaviors occur in a classroom interaction.

REACTING TO PUPILS' RESPONSES

SECTION I

Probing

The first teaching skill that we will talk about is called "probing". Probing, as it is defined here, is a type of teacher questioning behavior which consists of a series of questions, pursuing one concept, with one pupil.[1] For example, consider the situation in which a pupil responds to a teachers' question. The response may be superficial or inadequate, yet the teacher may decide that the student's response should be pursued with further questions along the same lines. The teacher may thus be able to tell just how complete a given pupil's concept is by "pressing" him for more information--or "probing" him for additional responses. The teacher may also use probing questions to "lead" a child to the correct response.

The concept of probing is related to the overall problem of effective teacher-pupil interaction. Specifically, probing is a skill useful in overcoming a teacher's tendency to end an interchange following a single response from a student. Thus, when the teacher is given a pupil response which needs expansion or clarification, the teacher asks the student to clarify the statement, rather than providing the information himself or calling on another student to do so. Obviously, then, a series of questions must pursue the same topic to be considered a probe. Furthermore, by definition, a probe cannot be the first question in a series.

At times, probing may be used to prompt a student. That is, the teacher may use a series of questions to lead a pupul to a correct response.

---

[1] It should be noted that some other sources will define other types of probes. They do not require that probing be carried out with one student. Further, they would include group probes or other types of questions addressed to more than one student, e.g.,

Smith, B. Othanel, Teachers for the Real World, AACTE (Washington: 1969), pp. 73-78.

At other times, the teacher may use probing to test the pupil's degree of comprehension. However, the form of probing always remains the same: a series of questions, pursuing one concept with one pupil.

Viewing a Film

We will now show you a filmed classroom sequence in which a teacher uses probing in a reading class. Watch for series of questions with a single pupil. When you see a blank screen, the projector will be stopped and you should proceed to the next page. You will then be asked some questions about probing and the filmed lesson. Watch for interchanges which are examples of probing.

PATTERNS OF TEACHER-PUPIL INTERACTION I - SCENE 1

** PLEASE TURN TO THE NEXT PAGE **

Discussing the Film

Were there any particular sequences that impressed you as being examples of probing? Write a short descriptive sentence concerning one or two of these sequences. You might describe the sequence by the topic being discussed.

** PLEASE TURN TO THE NEXT PAGE **

Were you able to identify some examples of probing? You might have identified a probing sequence by a major topic or question which described the interaction. Some of the interchanges which you might have identified are:

What type of store was it?
What is a disguise?
Why did the thief buy so many peppermints?

In each, the teacher pursued a single line of thought with one student by means of a series of questions. It is important to notice that the teacher often had to wait a moment for the student to respond. However, she was willing to do so for the purpose of continuing the sequence of questions.

In one case, the teacher started to probe on the reason the thief kept buying more and more peppermints. The student was unable to answer the original question, the teacher responded with a probe. However, she stopped after a single probe and told the student the answer. She might have carried the probe further to allow the pupil to draw his own conclusions.

Identifying Probing Interactions in Different Contexts

Presented below are some examples of interactions between a teacher and pupil(s). When reading the examples, keep in mind what you have learned so far about probing. You are asked to make some judgements about each of the examples. These examples are being chosen from a classroom situation different from the film. There are three parts, each consisting of one or two examples followed by some questions. Make sure you answer all the questions. The correct answers will follow.

** PLEASE TURN TO THE NEXT PAGE **

Example I.

1. Teacher: All right class, let's spend a few minutes on photosynthesis which we discussed yesterday. Joe, can you tell me what kinds of plants photosynthesize?

   Joe: Green plants.

   Teacher: That's right. But why green plants?

   Joe: Because they contain chlorophyll.

2. Teacher: All right class, let's talk about photosynthesis for a while. Jim, what kinds of plants photosynthesize?

   Jim: Green plants because they contain chlorophyll.

   Teacher: Exactly, green plants do photosynthesize because they contain chlorophyll.

QUESTIONS:

1. Which one of these two cases is an example of probing? Circle the correct answer.

   A. Number 1
   B. Number 2

2. Complete this statement: Case number ( ) <u>is</u> an example of probing. because

3. Case number ( ) is <u>not</u> an example of probing because

Example II.

1. Teacher: Sandra, tell me why we cannot keep ourselves floating in the air? Why will we fall down?

   Sandra: Because it's the force of the earth which pulls us down.

   Teacher: You are very close to it, but John, do you know what it is?

   John: Law of gravity?

2. Teacher: Bill, tell me why we can't float in the air? Why will we fall down?

Bill: Beaause of a force by the earth which pulls us down.

Teacher: Can you remember the name of the force? We discussed it yesterday.

Bill: Something like gravity?

Teacher: Something like gravity?

Bill: Gravity.

QUESTIONS:

1. Which one is the example of probing? Circle the correct answer.

A. Number 1

B. Number 2

2. What characteristic does the one which you have chosen as "probing" have that the other one does not?

** PLEASE TURN TO THE NEXT PAGE **

Example III.

The students are divided into groups of three. Each group is given an article to read and evaluate from the point of view of paragraph construction. The teacher goes to the group in the back of the room and says, "Okay, people. Now how do you feel about this article?" One of the members of the group says, "We don't like it." The teacher says, "You didn't like it? What was wrong with it?" Another group member answers, "It was not organized and besides, the third paragraph was not needed." The teacher responds, "Right! The third paragraph did not include any new ideas or thoughts. It was a continuation of the second one."

QUESTIONS:

1. Is this an example of probing? Yes____ No____

2. Give reasons for your answer to Number 1.

3. If your answer is no, change the statements in such a way that it can be considered an example of probing.

ANSWERS TO QUESTIONS IN EXAMPLES 1-3

Example I.

1. A

2. (1) . . . because it consisted of a series of questions. Since the first response of the pupil was not clear enough, the teacher asked a second question. Further, the second question was addressed to the same pupil.

3. (2) . . . because it did not consist of a series of questions.

Example II.

1. B

2. . . . in the second one, the teacher asked the same pupil a set of questions. But in the first one, after he received the first response, he switched to another pupil.

Example III.

1. No

2. Because it is "group probes" which are excluded from our definition.

3. . . . one of the members of the group says, "We did not like it." The teacher asks him, "You did not . . ."

Summary of Probing Overview

In the exercises you have just completed, we have attempted to acquaint you with three characteristics or indicators of probing which distinguish it from other kinds of teacher questioning. Now that you have finished the exercises, we would like you to "pull out" these three indicators from the three parts and write them below. They should describe probing or non-probing or both--whichever is more convenient for you. But make sure you give at least three different indicators. When you have finished, turn the page to check your answer.

** PLEASE TURN TO THE NEXT PAGE **

Indicators of probes are:

1. A series of questions
2. Directed at one student
3. Under a single topic

Indicators of non-probes are:

1. Single questions
2. Switching to new students
3. Summarizing statements by a teacher
4. Group questions
5. Changing topics

Types of Probes

Now that we have viewed probing in a general sense, let's look at another film segment and be more specific as to the features of probing. Probing, as it is referred to in this program, refers primarily to a questioning procedure that pursues a line of thought with a single student. Furthermore, probing is more valuable when the nature of questions are such that types of knowledge required to answer the question changes. Three general types of questions are defined.

Type 1: Factual Meaning

The first level of interpretation includes the literal understanding of the materials. Your questions focus primarily on word, sentence, and paragraph meaning to insure that students know what the material is about.

1. Who were the main characters in the story?
2. What event took place?
3. Who is Mrs. Rosen?

Type 2: Implied Meaning

The second level goes beyond factual report or literal interpretation. You want to know if the reader understands what the author has implied, but not stated directly. You are asking the learner to draw inferences from the facts presented in the story.

1. What do you think Eddie felt like?
2. How was Joe able to tell so much about the robber?
3. Why did the people think the first man was the thief?

Type 3: Application of Knowledge

The third type of question asks the learner to assimilate or integrate the materials in such a way that he asks himself what the message means to him or how the ideas discussed could be applied in another setting. Once again you are asking the learner to go beyond the information given and make some inference or deduction. However,

in this case, you are asking him either to create a new situation or to transfer the knowledge to a different situation.

1. What would you do now if you saw a robbery?

2. Why do police ask different people about the same event? Does this have any importance in the way you get information?

Viewing the Film

Watch this next scene and pay attention once again to the probing behavior of the teacher. See if you can tell when or if she changes the types of probing questions. Does she probe for all three types of knowledge?

PATTERNS OF TEACHER-PUPIL INTERACTION I - SCENE 2

** PLEASE TURN TO THE NEXT PAGE **

Questions About the Film

Answer the following questions about the scene you have just viewed. The correct answers can be found on the next page.

1. Did the teacher use all three types of probes?

   A. YES

   B. NO

2. Which types of probes did the teacher use at least once? Circle all that apply.

   A. Type 1

   B. Type 2

   C. Type 3

3. Which type of probe did the teacher use most frequently.

   A. Type 1

   B. Type 2

   C. Type 3

4. Describe an instance in which the teacher changed the type of probe.

Answers to Questions on Scene 2

1. B

2. A and B

3. A

4. The teacher asked the student to describe Eddie. The student said he was Joe's friend and he "tells him stuff about the robbery." The teacher then asked why.

Interchange Exercise

Presented below are a series of three interchanges concerning the story in the film. After each section, there is a small chart on which you are to rate the teacher responses. If the response is a probe, place a check mark (✓) in the "probe" column. Then, try to identify the type of question by placing a check mark (✓) in the appropriate column.

Remember: Type 1 - asks for factual recall

Type 2 - asks for implied meaning

Type 3 - asks for application of knowledge

INTERCHANGE I.

1. Teacher: Lisa, will you describe the thief for us? What do you think this thief looked like? Well, you can see, let's describe him in terms of what you could see about him.

Lisa: (No response)

2. Teacher: They tell you some things in the story, don't they? What does the story tell us about this person?

Lisa: Joe said he had on a white sweater, and . . .

3. Teacher: Did the thief have on a white sweater?

Children: Uh, uh. No, no.

4. Teacher: No, but what are we told in the story? This thief is disguised as a woman, right? Okay, now what does she look like?

Lisa: She has a dress on, and uh, ɛ, a shopping bag.

5. Teacher: Yeah, she has a big shopping bag . . .

INTERCHANGE I	PROBE	Type 1	2	3
1.	____	___	___	___
2.	____	___	___	___
3.	____	___	___	___
4.	____	___	___	___
5.	____	___	___	___

INTERCHANGE II.

1. Teacher: What's she wearing on her head?

   Lisa: A hat.

2. Teacher: Right, what kind of hat? Wendell?

   Wendell: Gray.

3. Teacher: A gray hat, yeah. You think the hat would be little?

   Wendell: No, big. Big.

4. Teacher: Right, why would it be big? Herman?

   Herman: 'Cause. They might think he had short hair.

5. Teacher: Very good. It would hide his hair, and what happens with a hat brim?

   Herman: It covers his eyes.

INTERCHANGE II	PROBE	Type 1	2	3
1.	____	___	___	___
2.	____	___	___	___
3.	____	___	___	___
4.	____	___	___	___
5.	____	___	___	___

INTERCHANGE III.

1. Teacher: Yeah, uh, Lisa, what do you think Eddie felt about this, what, what do you think is going through his mind...when all this was taking place?

   Lisa: He thought that, uh, I guess he found out, uh, he, he was going to tell Joe and, and, uh, he was trying to figure out . . .

2. Teacher: Yes, he would tell Joe about it. Do you think he was interested in the robbery?

   Chorus: Yes.

3. Teacher: Yes, he was very interested in it, wasn't he? Do you think maybe he felt a little bit afraid?

   Patrick: A little bit.

4. Teacher: A little bit, maybe. Yeah. Would you feel afraid, Patrick?

   Patrick: A little bit.

5. Teacher: Sure you would. What would you do if you saw a robbery?

   Patrick: Call the cops.

INTERCHANGE III	PROBE	Type 1	2	3
1.	____	__	__	__
2.	____	__	__	__
3.	____	__	__	__
4.	____	__	__	__
5.	____	__	__	__

OF THE FIFTEEN TEACHER RESPONSES:

How many were probes? _____

How many were Type 1 probes? _____

How many were Type 2 probes? _____

How many were Type 3 probes? _____

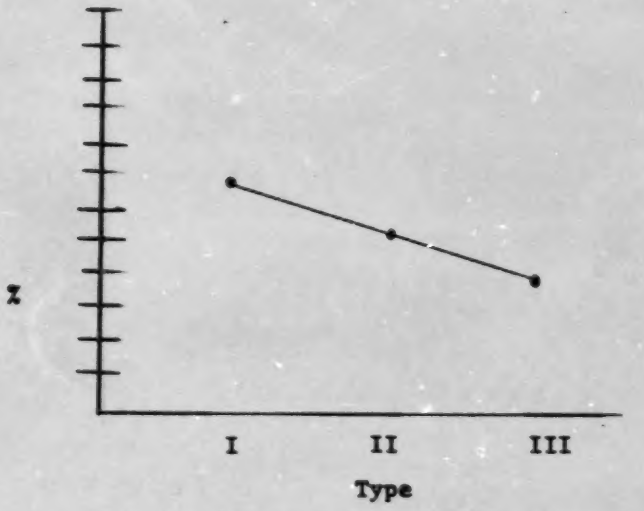
In all, there were about eight (8) or nine (9) teacher statements that could be classified as probes (see below). Not all probes were successful. In the first interchange, while the teacher may have aimed a question at Lisa, the response came from all the students. So the teacher had to redirect the question to Lisa. Also, in one case, Lisa did not answer. Silence, however, is a type of response (no response) and the teacher asked another question to prompt Lisa to respond. Of the probes, three could be classified as Type 1, three as Type 2, and two as Type 3.

ANSWERS TO INTERCHANGE EXERCISES

I.	P	1	2	3	II.	P	1	2	3	III.	P	1	2	3
1.	—	—	—	—		—	—	—	—		—	—	—	—
2.	✓	✓	—	—		—	—	—	—		✓	—	✓	—
3.	✓	✓	—	—		✓	—	✓	—		—	—	—	—
4.	✓	✓	—	—		—	—	—	—		✓	—	—	✓
5.	—	—	—	—		✓	—	✓	—		✓	—	—	✓

Patterns of Probing in Classroom Interaction

If you were to graph the occurrences of these three types of questions in most instructional situations, the pattern would probably look something like this:



That is, questions of the first category would be most prevalent, followed by Type II and then by Type III.

** PLEASE TURN TO THE NEXT PAGE **

Comparing the Probing Behavior of Two Teachers

Now you will be asked to compare the probing behavior of two different teachers. In the previous exercise you classified teacher responses from a written transcript of a lesson. This time you will classify teacher responses directly from the filmed lesson--a more difficult task. However, classifying teacher responses directly from the film more closely approximates the kinds of stiuations you will actually encounter in the classroom.

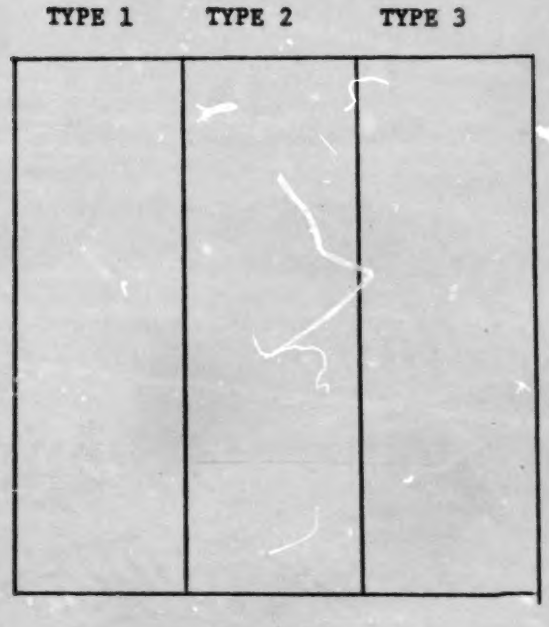
This exercise will include three parts. You will view two film segments: Patterns of Teacher-Pupil Interaction I - Scene 3 and Patterns of Teacher-Pupil Interaction II - Scene 1: As you watch the two scenes, you should decide whether a teacher response includes a probe and, if it does, what type of probe. Observation forms will be provided on which you can record your tallies.

After you view each scene, you will have an opportunity to check to see if your tallies are correct. In the final part of the exercise, you will be asked to compare the probing behaviors of the two teachers.

Observing Teacher #1

Now view the first film segment and classify the probing behavior of the teacher on the observation form. If the teacher's response includes a probe, decide whether it is a Type 1, Type 2, or Type 3 probe and mark the appropriate column. When you have finished, go on to the next page.

PROBING QUESTIONS



TEACHER #1

(Patterns of Teacher-Pupil
Interaction I, Scene 3)

PATTERNS OF TEACHER-PUPIL INTERACTION I - SCENE 3

Feedback on Observation of Teacher #1

In the sequence you have just observed, the teacher asked six probing questions. There were five Type 1 probes and one Type 2 probe. The teacher did not use any Type 3 probes.

Do not be discouraged if your observation tallies do not correspond with this analysis. Classifying on-going classroom interactions is a complex task. You may have found it difficult to decide whether the teacher's questions met the criteria for probing. No doubt you found it hard at times to tell whether a probe was asking for factual recall, implied meaning, or application of knowledge.

On the following pages you will find an annotated transcript of the film sequence you have just observed. Read through the transcript and decide where your tallies were correct or incorrect.

Annotated Transcript

Teacher-Pupil Interaction I

Scene 3

1. TEACHER: Okay, let's go back to Joe for a minute. Joe, the blind man. Where is Joe when this story takes place, Loretta?

   LORETTA: He was by the store, he, I think he was by the store.

2. TEACHER: He was by the store, Herman, where exactly was Joe's newsstand?

   HERMAN: Ah . . .

3. TEACHER: Remember?

   LISA: He was by the candy store.

4. TEACHER:	It was by the candy store, it was out in front of the candy store, wasn't it? Joe had a newsstand out in front of the candy store. So, Herman, what does Joe observe, what, what does he notice when the robbery takes place?	
HERMAN:	(no response)	Teacher responses #1-#5 do not include any probes. They do not include a <u>series</u> of questions directed at a <u>single</u> pupil.
5. TEACHER:	Remember . . .	
A CHILD:	(Whispering)	
6. TEACHER:	What do we know about Joe? What do we know that he did not do?	Teacher response #6 is a <u>Type 1 probe</u>.
HERMAN:	Steal the cash box.	
7. TEACHER:	Okay, we know that he didn't steal the cash box, but there's something special about Joe that limits the way that he perceives things. You know what it means to perceive . . . the world around you? . . . to know that it's there, Lorri, Loretta, what is it about Joe?	
LORETTA:	He can, he know how to tell people from people, he know from their steps.	
8. TEACHER:	Yes, he can distinguish people, but Lisa, what is it that makes him special?	
LISA:	He knows (clears throat), he knows the footprints . . .	

9. TEACHER: But why does he know the footsteps of people?

LISA: He blind.

Teacher response #9 is a Type 2 probe because it asks the pupil to give information implied rather than stated directly in the story.

10. TEACHER: He's blind, right. So what does he do, he he can't see so what does he learn to do?

A CHILD: (Talking in background) He listens . . .

11. TEACHER: Right. He learns to listen, doesn't he? Think for a minute, if you couldn't see anything . . .

A CHILD: (Talking in background) You'd . . .

12. TEACHER: (Continuing) . . . you'd learn to listen pretty carefully, would't you? So, Herman now tell us, what does Joe notice about these people? Right after the robbery, what what is one of the things that he notices?

HERMAN: (No response)

13. TEACHER: Joe, what does he notice?

JOE: Man . . . and the footsteps . . .

14. TEACHER: Yes, the footsteps coming out of the store, and what about the footsteps?

Teacher response #14 is a Type 1 probe.

JOE: He, he listens to 'em . . . listens to the footsteps to see if there's a man or a woman.

A CHILD: (Talking in background)

15. TEACHER: Yes, and what does it turn out, what is his conclusion? That it is . . . that a woman . . . What about the footsteps, Lorri?

Teacher response #15 is not a probe because she calls on another student

LORRI: He says he strong, that a man, a lady don't walk all that, uh . . . uh . . . uh, strong . . . an so he . . .

16. TEACHER: Doesn't walk so heavily . . .

LORRI: Uh huh, and, and he knew that the man that robbed . . . because he . . .

17. TEACHER: Okay, he knew that it was a man because of his footsteps. What else did he notice, Joe? The Joe in the story, what did he notice . . . about this person?

Teacher response #17 is a Type 1 probe.

JOE: (No response)

18. TEACHER: What, what attracted his attention to this person? Lisa?

LISA: He bumped the . . .

19. TEACHER: He bumped the newsstand as he was coming out, right?

LISA: Uh, huh, and he heard the money, uh . . . shake.

20. TEACHER: Heard the money jingle . . .

LISA: And, and so, uh, thought when Joe took his . . .

21. TEACHER:	Something else. What did he notice with his nose?	Teacher response #21 is a Type 1 probe.
LISA:	He smelled.	
22. TEACHER:	He smelled what?	Teacher response #22 is a Type 1 probe.
LISA:	Peppermints.	
CHILD:	Peppermints.	
23. TEACHER:	Right, he smelled peppermints, didn't he? Okay, Lisa, will you describe the thief for us? What do you think this thief looked like?	Teacher response #23 is not a probe. The teacher asks a question of the same student, but it involves a new concept

Observing Teacher #2

Now you are to classify the probing behavior of the second teacher. This time you will view the film, Patterns of Teacher-Pupil Interaction II - Scene 1. Proceed in the same manner as you did in observing Teacher #1. Use the observation form below to record your responses. When you have finished, go on to the next page.

PROBING QUESTIONS

TYPE 1	TYPE 2	TYPE 3

TEACHER #2

PATTERNS OF TEACHER-PUPIL INTERACTION II - SCENE 1

Feedback on Observation of Teacher #2

In the film sequence you have just observed, Teacher #2 asked seven probing questions. She used two Type 1 probes, four Type 2 probes, and one Type 3 probe.

Once again, an annotated transcript of the film segment is provided below so that you may check your observations with it. When you have finished checking your tallies with the transcript, go on to the third part of this exercise, in which you are asked to compare the probing behaviors of the two teachers.

Annotated Transcript

Teacher-Pupil Interaction II

Scene 1

1. TEACHER: But today we have an exciting story to talk about. What is the exciting event which occurred in this story, Raymond?

RAYMOND: Uh, uh, little candy store got robbed.

2. TEACHER: A candy store has been robbed. Have any of you ever witnessed a robbery? I bet you've seen them on television. All right, there's a robbery and everybody's all excited. Who are the people outside the store who witness the robbery, Jimmy?

JIMMY: Uh, Joe and Eddie.

3. TEACHER: Joe and Eddie. What's unusual about Joe?

JIMMY: Uh, he's blind.

Teacher response #3 is a Type 2 probe. You may have had difficulty in deciding if this was a Type 1 or 2 probe.

4.	(TEACHER)	(Also talking in background)	
5.	TEACHER:	He's blind. What does he do for a living?	Teacher response #5 i a Type 1 probe. The information required is stated in the sto
	JIMMY:	He, uh, uh, and he, helped Eddie sell his papers and stuff.	
6.	TEACHER:	He sells papers in a newsstand, uh, and he's blind and so how does he, since he's blind, how does he get information about things that are going on around him in the world?	Teacher response #6 i a Type 2 probe. The information required is implied in the story.
	JIMMY:	Uh, his ears.	
7.	TEACHER:	His ears. He listens to the world around him. What other senses does he use?	Teacher response #7 i a Type 2 probe.
	JIMMY:	Uh . . .	
8.	TEACHER:	Suppose your mother was putting a big meal on the table and you walked in the front door...	
	JIMMY:	His, uh, nose.	
9.	TEACHER:	His nose, exactly. He uses his other senses because he can't see. His eyes are gone, so he uses his ears and his nose and his fingers to feel things. What do these things have to do with the story, Jimmy?	Teacher response #9 is a Type 2 probe.
	JIMMY:	Uh, and, and the smell of, he smelled the peppermints...	

10. TEACHER: He smelled peppermints.

JIMMY: (Continuing) and, and he, uh, he heard the footsteps of, of the, uh, disguised lady.

11. TEACHER: You know, I don't understand how in the world is Joe going to know that it was a lady disguised if he's blind?

A CHILD: He heard her footsteps, uh, when a woman's footsteps.

12. TEACHER: Right. How does he know that they're not a woman's footsteps? Wayne?

WAYNE: 'Cause, 'cause women's footsteps, they don't make a whole bunch of noise.

13. TEACHER: Why don't women make a lot of noise when they walk? What's different about a woman that makes her not make a lot of noise when she walks?

WAYNE: She walks silent.

Teacher response #13 is a Type 3 probe. While the question does call for an inference, we have coded it as a Type 3 probe, because it involves the application of knowledge to a NEW situation.

14. TEACHER: If you put me beside a two hundred and fifty pound football player and have us walk across the room, who's going to make more noise?

CHILDREN: The man. The 250 pound football player.

15. TEACHER: The 250 pound football player. Why?

A CHILD: He's the heaviest.

Teacher response #15 is not really a probe since it is not addressed to the same pupil.

16. TEACHER: Wayne, why Wayne?

WAYNE: 'Cause he weigh more than you.

17. TEACHER: Because he weighs more than me. He's heavier than me.

All right. In the story, Joe can't see that this lady is large, so he knows from what that she's large? Or he's large? You said a minute ago that he uses his other senses. Which one tells him that this lady is large?

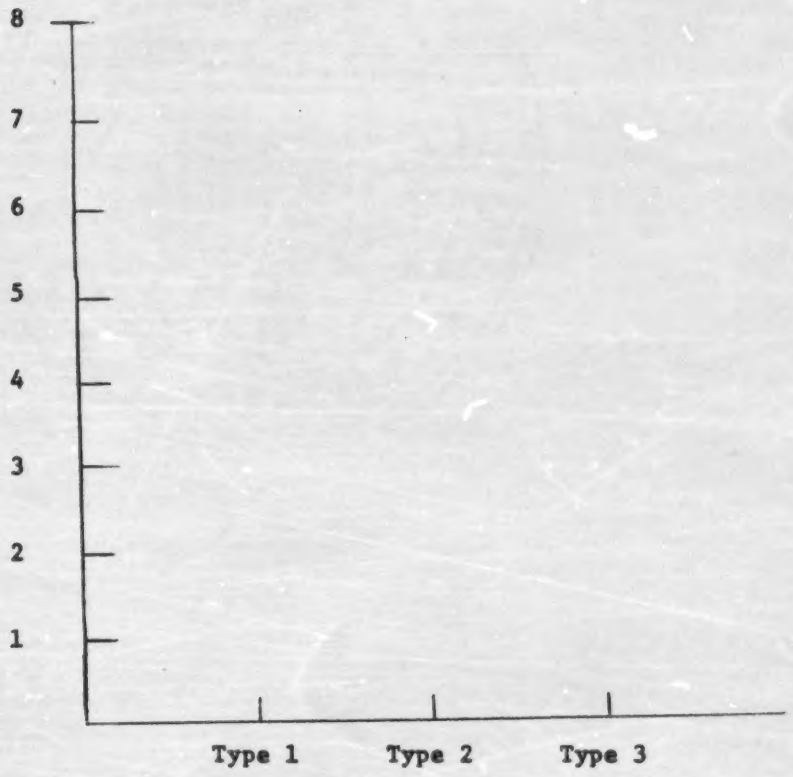
WAYNE: Uh, hearing?

18. TEACHER: The hearing, exactly. Now speak up, Wayne. So he hears her footsteps and realized that they're very loud, so this must not be a woman.

Teacher response #17 is a Type 1 probe. You might also have coded it as a Type 2 probe, depending on what type of knowledge you think is required to answer it. Considering the extended discussion that preceded it, and the fact that the teacher appears to equate "heavy" with "large", we have coded it as a memory level probe.

Comparing the Probing Behavior of Teacher #1 and Teacher #2

Now you are to compare the probing behavior of the two teachers by means of a graph. Use an unbroken line (————) to represent Teacher #1 and a broken line (----------) to represent Teacher #2. You will need to refer to your tallies and to the annotated transcripts for the necessary information.



Legend:

Teacher #1:_____

Teacher #2:_____

Write a brief paragraph comparing and contrasting the probing behaviors of the two teachers. You may want to refer to the graph you have constructed.

What factors might account for the <u>differences</u> in the probing behaviors of the two teachers?

Summary of Section I

Probing has been defined as a questioning technique that has three essential features. Can you name them?

Furthermore, the types of questions used can be of three types. What are the three types of questions?

This concludes the first section of this instructional unit. The next section will introduce you to the second concept: accepting responses.

REACTING TO PUPILS' RESPONSES

SECTION II

Accepting Reactions

The second concept we will introduce involves the teaching skill of offering accepting or encouraging reactions to pupil responses. Once a pupil has responded in class, the manner in which the teacher reacts to his contribution can greatly influence whether the pupil will continue to respond. If the teacher reacts to the student's response in an accepting and encouraging manner, the pupil will be more likely to offer further responses than if the teacher rejects or ignores the pupil's contribution.

The term accepting reactions as used in this manual, refers to a broad range of verbal and non-verbal teacher behaviors which are likely to encourage and increase the frequency of pupils' responding behavior. Verbal and non-verbal aspects of accepting reactions rarely occur in isolation. The teacher's verbal acceptance of a student's response is usually accompanied by several kinds of non-verbal encouragement such as smiling, nodding, looking at the student, or waiting for the student to answer. For the present, we will focus on a number of verbal accepting reactions which a teacher can use to encourage pupils to respond in class. Later, we will look at some of the non-verbal kinds of encouragement a teacher can give. Descriptions and examples of several kinds of verbal accepting reactions are given below.

Example 1. Telling the Pupil that his Answer Is Correct

Teacher: Mary, what are the factors of 15?

Mary: 5 and 3.

Teacher: Exactly! Good!

Simply telling the pupil that her answer is correct can be encouraging. In the example, the teacher also praises the pupil's answer as a good contribution. The student is encouraged to give further responses.

Example 2. Telling the Pupil that His Answer Is Incorrect, But Encouraging Him to Try Again

Teacher: Bob, which planet is closest to the sum?

Bob: I think it's Venus.

Teacher: No, Venus is the next nearest planet. Think for a moment . . . .

Bob: Mercury.

The teacher informs the student that his answer is incorrect in an accepting, non-punitive manner and encourages him to respond again.

Example 3. Repeating or Summarizing the Pupil's Answer

Teacher: Let's look at a new song today: "Soaring" on p. 24. Can anyone tell me what key it's written in? Bill?

Bill: The key of C.

Teacher: The key of C. Where will we find "do"?

Here the teacher accepts the student's correct answer by repeating it. He follows his accepting reaction with a probe.

Example 4. Repeating the Pupil's Answer with Rising Voice Inflection

Teacher: Who are the children in the story read today, Sandra?

Sandra: The Mitchell twins, Helen and Mike.

Teacher: Helen and Mike (rising voice inflection) . . . .

Sandra: And their little brother, Peter.

In this instance, the teacher accepts the student's response by repeating it, but signals that it is incomplete by her rising voice inflection. The student is encouraged to respond further.

In the examples you have just read it is important to note that the pupil's answer need not be correct for the teacher to respond to it in an accepting and encouraging manner. In a very real sense, the student whose answer is incorrect or incomplete may need more encouragement to respond again than the student whose answers are consistently correct.

The examples listed above do not begin to exhaust the kinds of verbal accepting reactions teachers can make to a student response. Teachers can also say,

-- "Yes, go on."

-- "Mm-hm"

-- "Gee, I never thought about that before. That's a good point."

-- "Well, that's not what I had in mind, but what you've said is certainly correct."

-- "That's an interesting idea! Let's talk about it for a moment."

-- "In most instances, what you've said would be true. However, in this situation . . . ."

-- "I like the way you put that. Can you elaborate on your comment?"

-- "I think you're on the right track. But what did you mean by . . . .?"

In addition, teachers often combine several kinds of accepting reactions in their responses to students. The list of verbal accepting reactions is virtually limitless. Anything that a teacher says to encourage a student to respond further is a verbal accepting reaction.

Viewing a Film

Watch the film, Patterns in Teacher-Pupil Interaction II - Scene 1. See if you can identify examples of verbal accepting reactions.

_____

_____

PATTERNS OF TEACHER-PUPIL INTERACTION II - Scene 1

_____

_____

Discussing the Film

Were you able to identify any example of verbal accepting reactions which the teacher used to encourage pupil responding? Briefly describe a few examples in the space below.

On pp. 35 and 36 you saw examples of four kinds of verbal accepting reactions. Which of these did the teacher in the film use most often?

Feedback

The teacher in the film offered many accepting reactions to student responses. Most of the time she repeated the pupil's correct answer or repeated his answer with rising voice inflection. In two instances, she told a student that his answer was correct by saying "exactly" and "right".

Identifying Accepting Reactions in Different Contexts

Below you are given an exercise consisting of ten different teacher-pupil interactions. Read the items carefully. Then decide whether the teacher's response includes an accepting reaction. If it does, mark an "A" for accepting reaction. If it does not include an accepting reaction, leave the item blank.

1. Teacher: John, when did World War I start?

John: I'm not sure. Around 1936?

___ Teacher: Well, that's World War II. Think about the time it was over. That may help you to remember.

2. Teacher: Well, let's see who has learned the multiplication of power. Mary, can you tell me what is the product of $2^5 \times 2^3$?

Mary: 4^8?

___ Teacher: No, that is wrong! Didn't you study your assignment last night??

3. Teacher: Lewis, spell the plural of Kentucky.

Lewis: K E N T U C K I E S

___ Teacher: You are following the rule beautifully. But you've forgotten about the exceptions. What kind of a name is Kentucky?

Lewis: Proper name.

4. Teacher: Bill, give me an example of protozoa.

Bill: Paramecium.

___ Teacher: Right! Can you give me another one?

5. Teacher: Mary, you said we need the army. But, you didn't say why.

Carol: Because it does many things for us--like protecting the country, fighting against enemies, etc.

___ Teacher: Right! We need the army because of all these things that it does for us.

6. Teacher: Who knows what is the capital city of the Philippines?

Mike: I do! It's Bangkok.

___ Teacher: No, Mike. Bangkok is not in the Philippines. Mary, where is it?

Mary: Thailand.

7. Teacher: What does "No bravardes pas" mean?

Jean: Don't talk?

___ Teacher: Very good. It means do not talk.

8. Teacher: How many sharps does C Major scale have?

Joe: One, F sharp.

___ Teacher: It's G Major scale which has F sharp in it. I asked about C Major scale.

Joe: Oh, yeah. C Major scale doesn't have any.

9. Teacher: To what class of animals does Planaria belong?

George: Flatworms?

___ Teacher: Well, it's about time you finally got that right.

10. Teacher: Who is the "president" of England now?

Judy: Queen Elizabeth.

___ Teacher: You missed the point, Judy. I said, "president". Can you tell me now what was the point?

Judy: England has a constitutional government, not a republic so Queen Elizabeth is not a president. She is like a king.

ANSWERS TO INTERACTIONS 1-10

1. A The teacher informs the student why his answer is incorrect, but encourages him to respond further.

2. ___ The teacher's reaction to the pupil's incorrect answer is punitive instead of encouraging.

3. A For the same reason as Number 1.

4. A The teacher informs the student that his answer is correct and follows his accepting reactions with a probe.

5. A The teacher tells the pupil that her answer is correct and summarizes her response.

6. ___ Here the teacher rejects the accuracy of the response without allowing the student to save himself. The teacher calls on another pupil instead of encouraging the first pupil to respond further.

7. A For the same reason as Number 5.

8. A The teacher informs the student that his response is inaccurate and points out the source of the error while helping him to give another response.

9. ___ The pupil's answer is correct. However, the teacher responds in a highly punitive manner.

10. A The student responds inaccurately to this "trick" question. The teacher, however, encourages her to try again.

Non-Verbal Accepting Reactions

In the previous section of this manual, you were introduced to some examples of verbal accepting reactions. You learned that what a teacher says to a pupil can often determine whether the pupil will continue to respond. Speech, however, is only one channel through which a teacher can communicate encouragement to students. A teacher's tone of voice, facial expression, gestures, and body posture all convey meaning. Students, on their part, are highly sensitive to the non-verbal messages a teacher sends.

In this section of the manual, we will look at certain non-verbal teacher reactions which can encourage pupil responding. Listed below are a few examples of non-verbal accepting reactions:

1. Looking at the pupil
2. Smiling
3. Nodding
4. Gesturing
5. Moving toward the pupil (if the teacher is standing)
6. Including toward the pupil (if the teacher is seated)
7. Waiting for the pupil to respond

Through these and other non-verbal cues, the teacher can convey the message, "Your response is worthwhile. I am interested in what you have to say. Please continue."

Viewing a Film

This time you will view two scenes from the film, Patterns of Teacher-Pupil Interaction II. When you see a blank screen, do not stop the projector, but instead go on to the next scene. Look for examples of non-verbal accepting reactions. Notice especially if the teacher's non-verbal accepting reactions differ in the two scenes.

PATTERNS OF TEACHER-PUPIL INTERACTION II - SCENES 2 AND 3

Discussing the Film

Were you able to identify examples of non-verbal accepting reactions which occurred in the film? Describe them below.

Scene 2

Scene 3

How did the teacher's non-verbal behavior differ in the two scenes? In which scene did the teacher's non-verbal behavior appear to indicate that she was interacting at a more intense level with the students?

Feedback

In the first scene (Scene 2 of the film) the teacher encouraged pupils to respond by maintaining eye contact with them and by smiling. By leaning back in her chair, the teacher signaled a more relaxed, easy-going level of interaction.

In the second scene (Scene 3 of the film) the teacher continued to smile and to maintain eye contact with the students. However, she appeared to be interacting in a more intense manner with the pupils. On several occasions, for example, she sat on the edge of the chair and leaned forward toward the pupil who was responding. She also used gestures to reinforce her verbal reactions.

Review of Teacher Accepting Reactions

In the exercise which follows, fill in the missing words to complete the paragraph. The correct responses can be found on the next page.

Accepting (1)_____ are teacher behaviors which are intended to encourage the (2)_____ behavior of a pupil. In other words, the teacher tries to increase the (3)_____ of a pupil's responses. Teacher (4)_____ reactions may be either verbal or (5)_____. However, in both verbal and non-verbal reactions, the accepting behaviors act as a kind of approval or praise of a pupil's (6)_____ in order to encourage him to offer another (7)_____. The important point to be mentioned is that a pupil's response need not be (8)_____ for the teacher to respond to it in an accepting and (9)_____

manner. That is, the teacher is not primarily encouraging the pupil to offer only accurate responses, but rather, the teacher encourages responding (10)_____ in general.

ANSWERS TO REVIEW EXERCISE:

1. reactions
2. responding
3. frequency
4. accepting
5. non-verbal
6. response or answer
7. response or answer
8. correct or accurate
9. encouraging
10. behavior

Probing and Accepting as Complementary Skills

In the previous sections of this manual, we have looked at probing and accepting as separate teaching skills. Of course, there are times when a teacher will use these behaviors independently. In most instances, however, a teacher will use probing and accepting as complementary teaching skills. The teacher, for example, may offer accepting and encouraging reactions as a pupil attempts to respond to a probe. In other instances she may follow her accepting reactions with a probe in order to direct the student's response along a particular line of thought.

Identifying Probes and Accepting Reactions in a Written Transcript

Below you will find a partial transcript of a scene you have viewed. Check the appropriate columns if the teacher's response includes an accepting reaction or a probe.

		Accepting Reaction	Probe
Teacher:	Raymond, if you were going to be very mean and do something just very bad, and you didn't want anybody to know what you were going to do, how would you keep people from finding out?		
Raymond:	Do it by myself.		
Teacher:	Do it by yourself? How could you keep people from knowing it was you who saw you?		
Raymond:	Change clothes.		
Teacher:	Change clothes, uh, how about ah, your hair, how could you change your hair?		
Raymond:	Could we it.		

		Accepting Reaction	Probe
Teacher:	Wet it.		
Raymond:	Flatten it out, like that.		
Teacher:	Flatten it out. But suppose you were going to really make yourself so that nobody would know who you were, you wanted to change from a boy into a girl. How would you do that?		
Raymond:	Put on some clothes, and put some dresses on, lipstick and make-up and stuff.		
Teacher:	Can't hear you, Raymond.		
Raymond:	Lipstick and make-up and stuff.		
Teacher:	How about your hair this time? If you were going to make yourself....		
Raymond:	Put a wig on.		
Teacher:	...you might put on a wig. How could you cover it up if you didn't have a wig?		
Raymond:	Put a hat on.		
Teacher:	A hat. And the lady in the story does all of these things, doesn't she? Wayne, have you ever seen a robbery?		
Wayne:	Yes, ma'am		
Teacher:	You've seen a robbery? Did the police come?		
Wayne:	Yes, ma'am.		

		Accepting Reaction	Probe
Teacher:	What do police do when they get there? What is the first thing police do when they arrive someplace? Everybody is standing around. . .		
Wayne:	Check and see if everything's okay.		
Teacher:	All right. If everything's not okay, then they have to find out why it's not okay, right? And how do they do that?		

Feedback

In the transcript you have just coded, eight teacher responses included accepting reactions, seven responses included probes, and six included accepting reactions followed by probes.

Identifying Probes and Accepting Reactions in a Film

For your final task, you will identify probes and accepting reactions as they occur in a filmed sequence. As you may recall, identifying teacher responses in this manner is a much more difficult task than identifying them from a written transcript. However, classifying teacher responses directly from the film more closely approximates the kinds of situations you will encounter as a teacher when you monitor your own behavior in the classroom.

This time you will classify the behavior of Teacher #1, whom you observed in Section 1 of this manual. As you watch the film, decide whether each teacher response includes an accepting reaction or a probe. There are twenty-four teacher responses in the film segment. Use the observation form provided below to record your responses. If the teacher's response includes an accepting reaction or a probe, place

a check (✓) in the appropriate column. Do not worry if you miss a response or lose your place. Simply continue with the next response.

OBSERVATION FORM

Teacher Response	Accepting Reaction	Probe
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

Teacher Response	Accepting Reaction	Probe
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		

PATTERNS OF TEACHER-PUPIL INTERACTION I - Scene I